

Abstract

**Lithographic Apparatus and Method to Determine Beam Characteristics**

5           A lithographic apparatus is provided that has an aperture, a detector configured to  
detect an intensity of a radiation beam directed through the aperture and a processor  
configured to vary the intensity of the radiation beam through the aperture by a relative  
movement of the radiation beam and the aperture and to calculate a beam size of the  
radiation beam from the detected intensity and relative movement. Alternatively or in  
10 addition, a lithographic apparatus may include a focusing element configured to focus a  
part of a radiation beam in a focus plane, an aperture arranged in the focus plane of the  
focusing element, a detector configured to detect an intensity of the part of the radiation  
beam through the aperture, and a processor configured to vary the intensity of the radiation  
beam through the aperture by a change in a pointing direction of the radiation beam and to  
15 calculate a beam divergence of the radiation beam from the detected intensity and pointing  
direction. The apparatus offers a means to determine beam quality characteristics such as  
beam size and/or beam divergence.